

ABSTRACT

A network includes a first node (110) and a second node (120). The first node (110) generates a timestamp message (220) that includes a first value, transmits the timestamp message (220) to the second node (120), and records a second time value representing a time at which a portion of the timestamp message (220) is being transmitted. The second node (120) receives the timestamp message (220), generates a new timestamp message (440) in response to receiving the timestamp message (220), stores the first value from the timestamp message (220) in the new timestamp message (440), stores second node processing time information in the new timestamp message (440), and transmits the new timestamp message (440) to the first node (110). Upon receipt of the new timestamp message (440), the first node (110) records a third time value representing a time at which a portion of the new timestamp message (440) is received, and determines the distance between the first node (110) and the second node (120) using the first value, the second time value, the third time value, and the second node processing time information.